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ABSTRACT

The workshop reported here was held to allow key personnel from secondary education and community colleges in Virginia an opportunity to explore existing problems as well as potential strategies relating to improved articulation of vocational programs at both levels. The content is presented in three parts. The first contains the three major addresses: "Making a Mesh of Vocational Education," by David S. Bushnell; "Articulation, Road Map to Employability," by Richard Carlson; and "Two Plus Two Equals Four or More?" by W. Robert Sullins. The next part presents the following three out-of-state articulation models: urban model at Milwaukee Area Technical College, Wisconsin; suburban model at Williamsport Area Community College, Pennsylvania; and rural model at Coosa Valley Vocational Technical School, Georgia. The last part summarizes three small group activities on problem identification, strategy identification, and identification of workable strategies. The appendixes include information pertaining to the following: pre-workshop problem identification activity, small group assignments, small group activities, articulation problems and strategies identified during small group activities, workshop program, bibliography on articulation, and the names of State Steering Committee members, workshop planning committee members, and workshop participants. (EM)

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ED164988

ARTICULATION WORKSHOP

FOR

KEY SECONDARY AND COMMUNITY COLLEGE

VOCATIONAL EDUCATION PERSONNEL

October 23, 24, 25, 1978

Blacksburg, Virginia

Edited by

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FOREWORD

Approximately 85 division directors, deans, presidents, assistant superintendents, directors of vocational education, university personnel, state department personnel and graduate students from throughout the Commonwealth of Virginia participated in the Articulation Workshop for Key Secondary and Community College Vocational Education Personnel. The major goal of the workshop was to bring together key individuals from both the secondary and community college levels to explore existing problems as well as potential strategies relating to improved articulation of vocational programs at both levels. The workshop was conducted October 23, 24 & 25, 1978 at the Donaldson Brown Continuing Education Center, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. The workshop was keynoted by David S. Bushnell, a national leader in articulation. Three out-of-state articulation models were presented for analysis by the participants. Small group activities were provided for the identification of problems and potential solutions.

Special appreciation is extended to the Division of Vocational Education, State Department of Education who supported and funded the articulation project.

Appreciation is also extended to the six group leaders who kept the small group activities moving and to the graduate students who served as recorders for the sessions.

A special thanks is extended to the workshop planning committee for the assistence and to Gary Austin who served as graduate assistant throughout the project.

James L. Hoerner
Project Director

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MAJOR ADDRESSES

MAKING A MESH

OF

VOCATIONAL EDUCATION

by

David S. Bushnell
President
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I am delighted to be here in Blacksburg on such a beautiful fall day and to participate in what I think is one of the more significant areas of concern facing vocational educators of today. Articulating vocational programs at the secondary and post-secondary levels offers the potential of not only smoothing the transition of students from one institution to another but of cutting back on the costs which inevitably are incurred when unnecessary duplication and overlap in programs are allowed to happen. I've chosen as my title "Making a Mesh" not because of the problems you may encounter in attempting to bring about greater articulation but because of the potential return on the effort that can be realized through coordination.

I've organized my remarks into three parts -- First, I'd like to spend a few minutes talking about the problems confronting vocational educators -- not only in Virginia, but nationally. Second, I would like to identify some of the barriers that need to be overcome if successful articulation is to be achieved. And third, I would like to outline for you some strategies for your consideration in overcoming these barriers.

First, then, speaking to the problems currently faced by vocational educators, let me illustrate my remarks by drawing upon some recent census data which points out that by 1985, there will be a dramatic increase in the number of people in the United States in the 25-44 age bracket, an expected increase of 29 million between 1975 and 1985. Accompanying this dramatic increase will

be a relatively modest increase in the 14-24 age bracket (approximately 10 million). This fact, coupled with a persistent growth in educational costs will have a major impact on those educational institutions who traditionally serve the young adult.

One of the implications of these demographics is the projected increase in post-secondary enrollments, particularly among the part-time students, many of whom have full-time jobs and are seeking to upgrade their current skills. These more mature, experienced enrollees will need services which differ from those provided to the more traditionally aged full-time student. Ironically, many of these services are not now available because of the unwillingness of state legislators to provide state reimbursement for the adult part-time student.

As high schools and community colleges shift their attention to meeting the needs of adults, there will need to be more awareness and emphasis upon the design and development of learning programs that are tailored to adult needs. Such a pedagogy is necessarily different from that which has been in use with younger students.

As if the need to adapt to a shifting population of students is not enough, the federal government is evidencing a shift in its funding priorities, largely as a result of the government's inability to solve the high unemployment rate among teenagers and young adults. We've only to remember that 15 years ago the feds promised the world. Something in the neighborhood of $18 billion was allocated in support of the expansion of vocational education programs in area vocational technical schools, community colleges, and other types of institutions. As a result of this expansion, the number of public institutions offering vocational education doubled in the time frame of 1965-1975. Enrollments increased threefold, from about 5 ½ million to over 15

million in that same decade. While access has been provided for millions of students who might otherwise have not had the opportunities to pursue vocational education, the rapid expansion and the heavy operating costs inevitably led to an increased burden on the taxpayer. When one recognizes that State and local governments match each federal dollar on a 5 to 1 basis, the magnitude of that burden begins to emerge. Even with federal funding available, the load on the local taxpayer has expanded at a more rapid rate than has federal funding. If one examines the value of the federal dollar invested in vocational education in 1975 and compares it with those dollars appropriated in 1971, there has been a decline in "real dollars" appropriated for vocational education if inflation is taken into account. Increasingly, then, the burden has shifted to the local taxpayer.

The irony in this shift has not gone unnoticed in that vocational education remains a popular investment in most states. The economic impact that a well-conceived and operated program of vocational education has on a local community can be shown to be one of the more significant stimuli to the local economy. In contrast, monies invested in CETA programs tend to have more of a short-term impact.

The third problem confronting vocational educators is that the current vocational education legislation, particularly those amendments passed in 1976, defeat many of the purposes set forth for vocational education. The proliferation of earmarked funds and set asides has hamstrung the state in its efforts to respond to its priorities and needs within the state. In addition to this issue, the 1976 amendments have greatly increased the reporting and coordination requirements. Each state has been required to overhaul its planning and reporting procedures and it must meet a number of other requirements to demonstrate compliance with enrollment objectives concerning women, minorities, and

the handicapped. Coordination with other manpower programs in the state and with other educational institutions has also been imposed as a mandated requirement.

These constraints and requirements have added additional costs to the already high cost of administering and delivering vocational education services. When one realizes that the federal dollars now being provided for vocational education have shrunk below those allocated in 1971, the dilemma of the state administrator becomes even more apparent.

A fourth problem concerning vocational educators at both the state and local level is the way in which monies are allocated to local districts. Most States tend to provide funds based on a flat per student rate or a per student credit hour basis even though vocational courses cost considerably more than others. This encourages institutions to offer the least expensive courses, irrespective of merit or local needs. In addition, vocational education funds are often earmarked by category or specialty which encourages course duplication between institutions.

Some state formulas provide support for full-time students only; thus, part-time students contribute nothing in the way of revenue from state funds even though they are the most rapidly growing segment of the vocational education population.

The fifth and last concern of vocational educators today is with the way in which states have set up to govern the distribution of vocational funds. A number of patterns exist at the state level for administering vocational education. Perhaps the most popular is the establishment of 2 boards, one overseeing elementary and secondary education and vocational education, and the second concerned with higher education, including community colleges. Another pattern incorporates all levels of education under one head while

still a third pattern operates with three boards of education; one concerned with secondary education, a second with vocational education at both the secondary and post-secondary level, and a third with higher education. The lack of coordination that occurs in those instances where vocational education responsiblities are divided up between 2 or more boards introduces, of course, all kinds of problems, not the least of which are competition for funds, uncoordinated planning, varying enrollment requirements, and a tendency toward more centralized decision-making.

The AACJC/AVA Joint Study

Recognizing the growing interest in improved program articulation and the problems confronting vocational education, two national associations, the American Association of Community and Junior Colleges (AACJC) and the American Vocational Association (AVA) determined to find specific and transferrable examples which other institutions and communities could emulate if they wanted to improve local coordination and cut costs at the same time. In August of 1976 the two associations agreed to jointly sponsor a study which would identify administrative practices and policies which have resulted in exemplary programs of cooperation between and among institutions offering post-secondary, non-bacculaureate programs of occupational education. The two national associations, although sharing similar goals and common interests, do represent different constituencies in the field of post-secondary occupational education. In the past, cooperation between the two associations has been limited. The joint study was not only an attempt to foster and develop effective working relationships between community college personnel and vocational education, but was designed to build a permanent working relationship between the two associations as well.

The objectives of the Study were to:

1. Identify policies and procedures that facilitate or impede articulation.
2. Gather data on and describe five successful case studies.
3. Disseminate widely the findings and recommendations of the study through a series of regional conferences, reports, articles and a national conference.
4. Establish a mechanism to continue cooperation between AACJC and AVA.

The Joint Study Team began its work in January, 1977, by convening a national advisory committee whose deliberations gave rise to a set of criteria to be used for the purpose of identifying successful cooperative efforts. Nominations of locations having exemplary programs were then solicited by mail from state directors of community colleges, state directors of vocational education, and from executive secretaries of state vocational advisory committees. A list of ten criteria were offered to them as guidelines in their deliberations.

By June 30, 1977, 203 site nominations had been received from all regions of the nation. A twenty percent non-random stratified sample of the nominated sites was then selected for detailed analysis. The twenty-two sites selected were purposely chosen to yield a good regional mix of sites and to provide for the distribution of eleven other variables which were hypothesized to influence the articulation process within a given area. Care was taken to insure that the purposeful sample of twenty-two sites were not only representative of the country's geographical regions but constituted a satisfactory mix of other relevant variables.

The data-collection phase of the study was completed by the end of the Summer of 1977. Two-person site visitation teams conducted interviews with institutional representatives (administrators, faculty, students and community

leaders) for the purpose of documenting the extent of articulation among institutions in the nominated community. Based upon these initial interviews and the analysis of the socio-economic data, five exemplary models were selected for more intensive study. These became the basis for a series of articles and reports, one of which is now available through AACJC or AVA.*

In its more classic use in education, articulation has been defined as a planned process linking two or more educational systems to help students make a smooth transition from one level of instruction to another without delays or loss of credit. Articulation can also be given a broader meaning. It can be defined as John Porter does as the process of fitting education into the larger community. Effective articulation may involve many systems within and among educational institutions. It can take several forms: cooperation between guidance counselors at the secondary and post-secondary levels; between an area vocational school director and a community college president; and, among community colleges and four year institutions. In short, successful articulation depends on open communication links and effective working relationships among people.

Since this workshop over the next two days will be primarily concerned with the articulation of vocational programs, it would be prudent for me to step off the lofty plane of abstraction I've started on and get down to specifics. What we're concerned about at this workshop is the development of a "practical, problem-solving approach to articulating secondary and post-secondary programs." In the best tradition of problem-solving, I had to make a choice -- should I talk about the eight steps involved in achieving better

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* David S. Bushnell, Cooperation in Vocational Education: An Executive Summary of the AACJC/AVA Joint Study, Washington, D.C.: American Association of Community and Junior Colleges, 1978.

articulation -- that will be the topic you will be addressing over the next two days -- or should I focus my remarks on something that might contribute to your approach to problem-solving -- namely, "if program articulation is so great, how come we ain't doing it?" Accordingly, my remarks this afternoon will deal with identifying the barriers to articulation. Near the end of my presentation, I'll offer a few suggestions on what might be done to overcome those barriers. Little of what I have to say will deal with task analysis, the development of performance objectives, or the design of criterion-referenced tests. If that's what you want, I suggest that now would be a good time to take a coffee break, but come back because good things will start happening soon.

Barriers to Articulation

Barriers to effective articulation can be grouped into four categories: (1) Institutional barriers, (2) Government controls and other external factors, (3) Communication barriers, and (4) Curriculum or pedagogical barriers.

I have already summarized the political and economic problems currently confronting vocational educators. That leaves me with the happy chore of delving at some length into the matter of inter-institutional barriers, something you have more control over, and communication barriers. I'll try to do that in two ways -- first, by describing the way institutions screen, counsel and place students, and second, by commenting on the communication barriers that crop up largely as a result of the way various institutions are organized.

Inter-Institutional Barriers

Ask any student who has tried to move from high school to college recently and he will be able to tell you in gory detail about the problems he suffered along the way. Such problems can be clustered under three headings:

(1) Admission policies and requirements; (2) Student services and assistance programs; and (3) Transition management.[1]

Admission Policies and Requirements

Until the 60's, many post-secondary educational institutions (including vocational schools) had established policies which would assist them in selecting potential students who were likely to succeed. These policies often screened out students who were not necessarily oriented to a college-level program, but who wanted additional vocational and technical training beyond that available to them at the high school level. Even the so-called "open door" institutions which were ready to embrace both the transfer and the terminal degree student unknowingly discriminated against the non-baccalaureate oriented student. The problems associated with admissions were not necessarily those associated with being accepted for enrollment but were more apt to be barriers encountered at the time of enrollment in a particular program. For example, lack of knowledge of entrance requirements of post-secondary institutions in various occupational areas led high school counselors to counsel their students to look for jobs or make applications to four year college. Such counselors knew and understood the academic programs but were often unfamiliar with vocational program requirements. Even admission officers at receiving institutions lacked knowledge of vocational program requirements and often applied the wrong selection criteria for such students. Many times the problem was really a lack of communication between counselors and admissions officers at sending and receiving institutions.

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[1]I would like to acknowledge my indebtness to Beryl McKinnerney and his colleagues at Texas A & M University for the clustering of these barriers in their 1974 publication entitled Student Articulation Between Secondary and Post-Secondary Education: A Suggested Guide. It can be obtained by writing the Superintendent of Documents in Washington, D.C. (Stock No. 1780-01294).

The already acquired knowledge and skill that the student brought with him needed to be assessed if he was to find his proper level within a given program. However, only a few institutions were really equipped to assess that prior knowledge and skill. Notice that I speak in the past tense. Such practices, of course, no longer prevail.

At the program or course level, instructors impose prerequisites which discriminate against the number, type, and sex of students admitted. Even though potential students may have the competencies required, they are denied admission to the program for lack of evidence of having that knowledge or skill. An even worse problem emerges from the types of prerequisites which many post-secondary institutions impose on students entering their programs. Students with inadequate learning skills may have difficulty in achieving the goals of the program, whereas other students with already acquired knowledge and skills may be forced to cover the same ground which they have already completed. These students, as a result, become bored and many ultimately drop out.

Students entering into post-secondary programs often do so without having a clear idea of the career choices they wish to make. In order to qualify for a specific program, they are often stampeded into seeking admittance into a specific program of study before they are really ready to make such a commitment. The problem then becomes one of keeping open their options while attempting to fulfill rather narrow requirements.

One of the more volatile issues faced by most post-secondary educational institutions today is the use of admissions tests. In many cases these test are used to screen students for advanced placement. The varied backgrounds, work experience and age levels may bias the results. Usually the ultimate decision of who receives what credit is left in the hands of the course

instructor. While it is true that students should be given the opportunity to seek advanced placement, giving the faculty person in charge of a particular program the primary responsibility for assigning credit is like leaving the fox to guard the chicken coop.

Performance testing, for example, is designed to evaluate where students are with regard to already acquired knowledge and skills. By demonstrating their occupational competencies, these students should be able to obtain credit toward a certificate or degree. Most institutions set a maximum amount of credit that can be allocated in this fashion and minimum time "in residence" that must be met. Such stratagems, while rationalized as in the best interest of the student, may serve to protect the vested interest of the faculty.

A more serious charge against institutions who make inadequate use of the advanced placement or achievement test is that through a failure to adequately communicate in advance a receiving institution's requirements, credits earned by students through testing or prior work experience are not given adequate weight. Students with military or previous work experience do not receive credit for that experience because no mechanism has been worked out in advance for doing so.

The transfer of credits from high school to post-secondary institutions also has its problems. Many post-secondary occupational programs still do not award credit for courses completed elsewhere. The student with advanced skills obtained in a secondary program is often not given credit for those skills when he enrolls in a similar program at the post-secondary level. Curriculum planners are unable to agree on or understand the sequence of skills and job-training activities which should be offered in order to avoid duplication of course requirements and prevent further time waste. Until such problems are resolved, articulation will be difficult to achieve and the costly

waste and unnecessary duplication of programs will continue.

Student Services and Assistance

Many students upon entering a new institution require developmental programs which will bring them up to a minimum progiciency level in such areas as mathematics, language skills, and science. Since a student's performance on-the-job will ultimately be affected by more than just learning skills, some means must also be developed to assess their attitudes and work orientation. Career counseling, placement services, and tutoring are also needed. There are no uniform policies governing who should offer what developmental and support services. A recent survey by the North Central Regional Accreditation Commission found that in 19 States, most post-secondary institutions offering vocational education were tending toward a common denominator of educational services, including developmental programs (see figure one). The question is who should offer what services? Two or more institutions located in the same geographical area may well find it advantageous to jointly operate their programs on a shared cost basis. I will discuss how that might be done in a few moments.

Other services present still additional problems. Financial assistance, other than federal aid programs, is often geared to academic achievement and not to occupational studies. The educationally and economically disadvantaged or handicapped student may be denied access to a program because of inadequate facilities or the unavailability of trained staff. Potential dropouts need to be identified early and given special assistance. All of these issues may act as barriers to successful articulation.

Transition Management

At the time a student moves from one institution to another, he or she requires considerably more information than is usually provided to make informed choices concerning programs, prerequisites, possible instructors, and study methods. Uninformed teachers at the sending institution are unable to orient

TYPES OF INSTITUTIONS	ROLES						
	VOCATIONAL	TECHNICAL	LOWER DIV. COLLEGE	ADULT EDUCATION		DEVELOP-MENTAL	CAREER COUNSEL
				CONT.	ABE		
AREA VOC. SCH.	X	(X)	E	X	(X)	X	X
TECHNICAL INST.	(X)	X	(X)	X	(X)	X	X
COMM. COLLEGES	X	X	X	X	(X)	X	X
JUNIOR COLLEGES	0	0	X	(X)	(X)	X	(X)
UNIV. BRANCHES	0	E	X	X	E	X	X
SKILL CENTERS	X	0	0	X	X	0	X

FIG. I: Current and Future Roles of Post Secondary Institutions (19 North Central States)

LEGEND: X = Primary Role E = Emerging Role

(X) = Secondary Role 0 = None

SOURCE: North Central Accreditation Region Council of Community Junior Colleges Task Force Report, Oct., 1977.

or offer guidance for lack of information concerning the receiving instituion. Vocational high school teachers and even area vocational school faculty have been heard to complain that community colleges require their entering students to enroll in unneeded courses in order to qualify for associate degrees. Community college spokesmen argue that students need more than entry level job skills to qualify for and advance in not one but multiple careers. These differences in educational approaches may lead to conflicts and misunderstandings. Even jointly-planned programs may prove to be fruitless if these differences in requirements cannot be bridged.

There needs to be more "truth in advertising" imposed on institutions actively recruiting students for their vocational programs. Since we are now entering an era of student shortages (and a buyer's market), particularly in the 16-20 age group, students should be given all the relevant information they need to make informed choices. Cost of program, employment opportunities, length of program, entrance requirements, and procedures for awarding advanced credit are among the minimal types of information that receiving institutions should be putting in the hands of potential enrollees.

Communication Barriers

To properly understand the many barriers to effective communication between secondary and post-secondary institutions requires an examination of the differences in organizational structures of the institutions involved. True, most educational institutions acquire and allocate resources, schedule classes and students, provide counseling, and hire and train teachers. But there, I'm prepared to argue, the similarities end. Traditionally, high schools have kept students in subordinate roles; college students enjoy a bit more freedom.

The position of high school teachers is not much better. High schools have been described as a "pyramid with staff sandwiched between administrator

and students". Downward communication is more frequent than upward. In many ways, a public high school can be described as the classic bureaucracy with a fairly rigid hierarchy of authority, explicit rules to guide behavior, impersonal social relations, and the appointment and promotion of personnel on the basis of merit.

At the post-secondary level, by contrast, college faculty have a good deal more influence on decisions which affect their daily activities. Colleges pride themselves on the degree of influence which faculty exercises over the selection of the new staff. They also exercise considerable control over their own teaching schedules, the content of the curriculum and the teaching environment. While they exert less influence over the selection of who is to be their college president, the size of their budgets, and what programs to offer, their influence on these matters contrasts favorably with the relative powerlessness of high school teachers.

I recognize that area vocational schools and community colleges occupy positions that fall somewhere between the two ends of the continuum just described. While area vocational schools may be more like high schools and community colleges more like four-year colleges, neither institution fits neatly under the college or the high school umbrella. Community colleges are more diversified than most four-year colleges, and many area vocational schools function as a single-purpose institution.

A colleague at Columbia University, Eugene Litwak, has suggested that all educational institutions should be described as "professional organizations" in that they combine a bureaucratic form of organization with a more human relations oriented mode.

Teachers and counselors, faced with the complicated and difficult task of adapting their pedagogy to individual student needs, can't be required to carry out such duties in a rigid time frame or in a uniform manner. Teachers

need and deserve a degree of autonomy in that the problems they must solve are not uniform -- they require on-the-spot problem solving. Administrators, who supervise both teachers and staff responsible for more standardized (uniform) tasks like class scheduling, have learned to deal differently with these two types of workers.

Returning to our identification of types of communication barriers between institutions, let me point out that an open, well-functioning, communication channel between two or more competing institutions of differing organizational structures may be difficult to achieve but it is possible -- witness the five case studies described by the AACJC/AVA joint study report. Without delving into the theory of effective interinstitutional communication too deeply (this topic is treated at length in my book soon to be published by AVA on Education and Training: A Guide to Interinstitutional Cooperation), suffice it to say here that the problem of insuring effective cooperation is one of eliminating misperceptions, involving the right people, dealing with conflict, and clarifying mutual benefits to be achieved through cooperation.

At this point, I'd like to offer a model (see figure 2) for displaying the interaction effects of the various factors which effect successful articulation among locally-based public and private vocational institutions, assuming a moderate degree of interdependency. Recognizing that articulation may take many forms, this scheme should serve as a useful device in guiding policy makers or administrators in the selection of an articulation strategy or mechanism which best suits the situation under consideration.

As an example, let us suppose that a high school and a community college located in a rural community decide to merge their program advisory committees in order to ensure a degree of articulation across programs as well as to lighten the burden of industrial firms whose qualified representatives recruited to serve are likely to be small in number. Both institutions are moderately

interdependent since the graduates of one frequently enroll at the other. Awareness of this moderate degree of interdependence was forcibly brought home to the leaders of both institutions when a recent bond issue was rejected by the voters, thereby provoking fiscal crises on both campuses. Incidentally, the role of an advisory committee member is reasonably uniform across all vocational programs, be they at the high school or post-secondary level.

Figure 2 suggests that under these conditions, Cell 7 offers the best approach. The importance of this function together with the limited number of qualified industry representatives available, plus the desirability of a shared awareness across institutions would bode well for the success of such an arrangement.

If we were to alter the conditions just outlined, such a strategy might prove to be undesirable. An area technical college serving a large metropolitan area requiring multiple links with a number of business firms and feeder high schools would find it difficult to merge its program advisory committees with surrounding high schools because of the logistical problems involved. Because of the likelihood that both industry and area high schools are relatively unaware of their mutual dependence upon the college, other strategies for creating awareness and a desire to work collaboratively with the various institutions and organizations involved need to be considered. Cell 10 of Figure 2 suggests that periodic presentations to high school counselors in the area high schools offer a potentially more successful strategy for implementing sound articulation practices. A joint planning and decision-making committee composed of local school superintendants and the president of the college meeting monthly would also be desirable. Such a committee would be empowered to resolve conflicts which inevitably erupt when a large number of programs require coordination.

Number of Occup. Programs	High Awareness			Low Awareness		
	Hi Uniformity	Med. Uniformity	Low Uniformity	Hi Uniformity	Med. Uniformity	Low Uniformity
Large Number of Occupa-tional Programs	1. Bureaucratic organizations require written articulation agreements and strong backing of key leaders	2.	3. Collegial structure requires conflict reduction mechanisms such as a coord. board.	10. State mandated coord. effective. Need for multiple links among sending and receiving institutions beginning with top admin.	13.	16.
Medium Number	4.	5.	6.	11.	14. Carefully planned and launched articulation program in area of uniform practice, e.g., computer services.	17.
	7. Requires periodic, care-fully scheduled joint planning and decision making meetings of key leaders.	8.	9. Frequent informal communication between faculty members and middle level administrators.	12.	15.	18. Build trusting rela-tionships at various administrative levels. Person to person contact most effective.

FIG 2: Forms of Articulation Under Conditions of Moderate Interdependence

There is much to be done if effective communication and cooperation is to be achieved nationwide. Some important achievements and breakthroughs have been made in many parts of the country. The AVA/AACJC Joint Study has made a significant contribution to understanding the problem. It has identified a strategy for implementing successful articulation. Appropriate follow-up steps must now be taken. And you as local leaders are in the best position to see that such strategies are carried out.

ARTICULATION, ROAD MAP TO EMPLOYABILITY

by

Dr. Richard Carlson
Director of Vocational Technical Education
U. S. Office of Education

I'm very delighted to be here with you tonight, to communicate and share with you my thoughts on articulation as they relate to vocational education. Articulation seems to be the new buzz word of the day. As an instant panacea it is known as a curing power for some of the most dreaded afflictions. I even heard that it will cure hook worm, bad breath, and that most dreaded disease bureaucracy. I don't know if all of the above is true, but I believe that if articulation is used in its truest sense to clarify and join-up, its positive powers will have far reaching effects.

Post-secondary institutions have a number of challenges that need the helping force of articulation, they are: (1) assuring that the major goal of the educational institution is to provide vocational and educational development of all students, (2) assuring that the institution is closely aligned with students vocational interest, motivations, and needs, (3) assuring that modifications by the institution in attitudes, procedures, and communications positively benefit students, and (4) assuring that the institution knows when and how to declare its mission to those agencies of oversite and funding. Using the four challenges as thinking assumptions I'd like to weave them into current day concerns.

Most of us know that there are critical events shaping education around the country. One of the new events now a household word is Proposition 13. The property tax limitation and incentive by Jarvis/Gann. Is there any relationship between Proposition 13 and Articulation concerns at post-secondary

institutions? We must answer in the affirmative if the institution is to declare its mission to agencies of oversite and funding.

Since that historic day in California when Jarvis/Gann inspired Proposition 13 there have been speculative tremors throughout all of the States. Sitting in this front row of speculation is the educational community. In the coming elections a few States hope to pass carbon copies of Proposition 13 and at least half a dozen other States expect to pass amendments which will limit State and Local Revenues. The passage of these tax reforms and limited spending proposals could cause a budget crisis from which no public education institution will escape. Simply put, taxpayers are asking institutions "what value are you giving us for our tax dollars?" The first agency that seems to get questioned is the educational agency. It is there, taxpayers confront the local school board through budget and bonding issues.

Because post-secondary institutions stay pretty busy <u>doing their own thing</u>, they neglect to articulate their value to the community of taxpayers. This phenomina is reflected in rejected budget requests or needed expansion. Post-secondary institutions that provide vocational education have mechanisms in place that can be extremely valuable in maintaining support from the community and the State. Many programs from trade and industry to agriculture, have Advisory Craft Committees. These committees usually have a dedicated ban of employers that can and do buffer adverse impact relating to budget delemas. The Craft committee composed of employers literally worked for the institution and became the strongest advocates of that program. The new vocational education amendments of 1976 mandated local advisory councils. Past experience with craft committees demonstrated how valuable the asset could be if used correctly. Proposition 13 can positively effect

an institution which has viable vocational education programs. The institution however has an obligation to communicate this viability to the community support base. Unfortunately too many post-secondary institutions do not seek out the help and support available to them via advisory councils.

Considering assuption #2 where the goal of the public post-secondary institution is to provide vocational and educational development for all students. I'd like to focus on a population that it usually overlooked. Serving this population can have immense impact on post-secondary institutional credibility and purpose. One of the reasons this special population gets overlooked is because they vanish from the secondary school system. It seems that they finish school before society is ready to confer on them completion certificates.

The attrition statistic of 25% nationally, and higher for inner-city youth startles no one. Ho hum! So what's new is the response. What's new is that social legislation through CETA and Vocational Amendments have focused high interest in the plight of this special population. With that interest is the targeting of large sums of program dollars to establish training programs. School retention or re-entry is a prime candidate of articulation for the post-secondary institutions. One might ask the following of their institutions:

1. Does it have an articulation policy to attract high risk students including high school dropouts.
2. Does it have strategies in place to identify, serve, and coordinate services with community and other agencies in behalf of this student.
3. Does it have formal and informal articulation links with the CETA Prime Sponsor - their advisory board - their liason with Govenor?

a) Has the institution offered to host public Prime Sponsor meetings?

b) Does the Prime Sponsor know what you can deliver and what your interest are?

c) Does your community know this?

d) Could your institution, would your institution, conduct satellite programs for out of school youth?

4. Does it have direct ties with the State Department of Education?

a) Do you know the staff personally?

b) Have the program staff visited your school - Do they know your programs?

c) Has the institution requested assistance?

5. Does it have a relationship with the State Advisory Council? Tonight we have Dr. Beamer, Executive Director of your State Advisory Council. Do you feel you can call on your council for help?

The articulation link with CETA-SACVE-SED are absolutely vital to the continued health of your post-secondary institutions. That link can only help your vocational education service to the total student population.

Historically vocational education enrollment were located at the secondary level. The past few years, however, the trend of vocational education continues to increase at the post-secondary level. In fact 40% of total vocational enrollments are at the post secondary level.

This trend will continue at even a greater pace when post-secondary institutions articulate in earnest across program and level lines. This articulation would halt the practice of requiring students to repeat work that they have completed in vocational high school programs. Hopefully advanced

standing for experience will become a reality in most institutions. The leadership mantal will be passed to those institutions which can master those wasteful and unnecessary practices by all too many of our post-secondary schools.

Vocational Education has tremendous community support but this support does not get articulated beyond the local level. National student leaders commented to me that vocational education gets more and more tarnished the farther away one gets from the local level. In fact they felt Washington was outright hostile to vocational education.

While they made these comments to me last spring they sure hit home as I read a section of the address by Dr. Samuel Halperin to staff at the National Center for Research in Vocational Education at Ohio State University. Sam Halperin is the Director of the G. W. University Educational Leadership Program. I quote from his address: "In an effort to identify specific values held by the members, I asked ten key congressional staffers-on both sides of Capitol Hill, on both sides of the party aisle-to list the criticisms of vocational education that they heard members express in the recent past. The responses bore a remarkable similarity to each other. While members of Congress believe there are many fine vocational programs, including, as I have already noted, some in their own congressional district or states, they worry that the following kinds of statements may be only too true.

1. Vocational education provides irrelevant skills training for today's job market and, especially, for tomorrow's economy. Vocational education is delinquent in providing basic educational skills, particularly the communication skills so necessary for a rapidly changing society.

2. Although Congress has been urging training in new job areas, vocational education insists on maintaining the old categories (e.g., trade and industrial, agriculture, etc.).

3. Vocational education is run by an encrusted, defensive, unprogressive educational establishment, unwilling to cooperate with society's other trainers for employment. Vocational education faculty don't keep up-to-date and think too narrowly, that is, only about their own vocation.

4. Vocational education is dominated by rural, vocational agricultural interests and, therefore, consistently shortchanges the cities.

5. Vocational education (and home economics in particular) is discriminatory toward women, minorities, and the handicapped and much of vocational education is sex-stereotyped.

6. Vocational education devotes too many resources to high school programs when most young people now go on to community colleges and other post-secondary education programs.

7. Vocational education is delinquent in statistical collection and "hard-nosed" program evaluation so that Congress and the taxpayer cannot know whether programs are effective or even in proper compliance with federal statutes.

8. Vocational education refuses to engage in effective statewide planning so that a state's needs and resources might be better matched.

9. Vocational education frustrates coordination with other levels and governance structures in education and spends most of its energy protecting turf.

10. Vocational education is too institution-oriented to school-age populations and doesn't care enough about the unemployed and about out-of-school youth. Thus, the nation is forced to create an array of costly job training programs outside the formal educational structure.

Those are only perceptions but they carry a lot of weight. Unfortunately these are the items that make the headlines. I also wonder what impact these kind of headlines have on the budget process. The alleged cuts of 200 million - in vocational education coming so close to these statements do lead many to feel there is a correlation.

Of course there is another side to the story. It goes like this. Sixty years ago President Wilson signed the Smith Hughes legislation. Through the years vocational education had phenominal success in terms of:

...Enrollments - 15 million reported.

...State fiscal support - overmatch $7.35 for each Federal dollar.

...Increasing involvement for women.

...Dramatic increase in the services and numbers served in special populations.

...Evidence that the vocational dollar assists needed social change.

...Placement rates of 88% of those available for employment.

...Strong public support.

One can continue the story of vocational education citing the countless thousands of individuals who experienced their first success in the vocational classroom. The personal change in their attitude and outlook that came from having employable skills.

Studies show that students who select vocational education generally have lower academic ability, have less self-esteem. However these same

studies show that students who completed their vocational program have higher rates of employment, earn as much or more as their peers and feel well satisfied with their progress.

Therefore vocational education is an equalizer for many who's tested potential suggest lower rates of achievements. I can go on and on--but your chorus of agreement won't solve the dilemma caused by other image makers.

How does this all relate to articulation at our post-secondary institutions? It relates if your programs are to be continued. The funding decisions are for the most part political. Vocational programs can be most exemplary serving the need very well but at funding time if there are no advocates sitting at the decision table you might as well put your money on the horses.

The stakes are very high for all of us. As educators we are responsible for articulating our program. We must be able to answer affirmatively that we have advocates in the Governor's office - with our senators, congressmen, and with the local board. Better yet if your products can be doing your talking.

My concluding remarks are these:

1. Assuming viable vocational education programs, the post-secondary institutions <u>really</u> have muscle for program expansion and continuation. Through advisory councils, concerned citizens, through employers and parents you've got one of the best articulation and support systems ever conceived.
2. Your involvement in the image created is vital. You have a stake in the action.
3. Tying the evaluation to student benefit is going to be the sustaining grace of your program.

Finally, any time that powerful concept articulation assists students, achieves the benefits in admissions, placement, grade standing, joining up, etc...and yes employment it will be the institutional gain. Achieving our reason for being is of course the Articulation Bridge.

TWO PLUS TWO EQUALS FOUR OR MORE?

by

Dr. W. Robert Sullins
Community College Program Area Leader
VPI & SU

The title of this presentation might also have been "Two Plus Two Equals Four or Less?" as the question relates to the return students get on their four years invested in occupational technical education through the typical two year secondary program capped by a two year post-secondary program. Numerous examples of duplicative, overlapping programs and courses make us all aware that in most cases students do not get a fair return on their investment of time, school costs and foregone earnings.

"High schools and colleges have developed as relatively self contained systems. A division into lower and higher education has come to seem perfectly natural." ..."Yet, efforts at effective articulation for the student have been to often inadequate, and both individual students and the society itself have borne heavy societal and economic costs for inadequate coordination between school and college."[1] These statements by the New York Board of Regents reflect a national concern which has grown naturally from our design of secondary and post-secondary education.

We are at a time when we value a concept of "Life long learning"; the idea that education should be seen as continuous, valuable for all and accessable to all. However, that concept does not imply that it should take a lifetime to accumulate marketable skills. On the contrary, today we are striving to provide all our citizens <u>early attainment</u> with opportunities for early attainment of occupational skills and subsequent placement in the job market while also providing opportunities for continued growth and development throughout adulthood.

Growing support for occupational-technical programs offered by secondary and post-secondary schools, improved prestige of those programs, increased desire for marketable skills and the virtual elimination of the "terminal" aspect of occupational-technical education have led to surprising growth in pre-employment programs. Not surprisingly, this growth has included considerable duplication, all of which appears unwarranted to lay citizens and legislators and much of which seems undesirable, even to the practical professional educator. Cost to taxpayers is undoubtedly significant and deserving of citizen's attention as they view duplicative programs requiring expensive equipment, staff and facilities. However, the greatest costs may be found in the lives of students who waste one or more years in repetitious programs or who eschew some beneficial programs because of perceived duplication or waste.[2]

It is embarrassing that we have waited until economically founded political pressure has brought us to a point of concern when we should have had the best interests of the students in mind all along. Professional and thinking educators, cannot, in my opinion, reject the notion that we should be working actively to improve articulation efforts. If that is the case, why has more not been done?

Barriers to Effective Articulation

There are a number of barriers to effective articulation efforts which must be overcome. Some of those barriers are greater than others but even the small tripwires may frustrate a serious effort. Among those barriers are:

1) Definition - What is Articulation? Until we are able to develop

some clear view of what it is we are attempting to accomplish we can expect little gain. Articulation is not just elimination of something someone is doing nor is it advanced placed testing. Those things can be done with no communication between institution. Articulation must include planned and coordinated programs and courses which clearly mesh between institutions so that students and faculty know when a program or series of course is completed at the secondary school level it fits at an appropriate place in the post-secondary program. Articulation includes the development of relationships such that determination of such placement occurs because of previous program completion rather than later testing.

2) A Numbers Orientation - We in America are so enamoured with numbers, size and growth as our measure of success that we forget all about measures related to quality. Presidents, deans, superintendents and principals all count their success by the size of their institutions. At national meetings their greetings include "Glad to meet you -how many students do you have?", and the executive of the largest school is identified at the best. With declining enrollment predicted we had better find more useful measures of who is best or we will all suffer ego problems. At any rate, our orientation to enrollment size inhibits efforts which even hint at the loss of a student, full time or part-time, even when in the long run increased program popularity may bring greater numbers to both institutions involved in the articulation process.

3) Funding - Source of funds for occupational-technical programs and their allocation to specific institutions certainly plays a role in articulation. Currently their is little incentive to develop articulated programs. Similar to the numbers orientation, administrators often fear that articulation efforts will lead to reduced enrollments and associated reductions in funding.

4) Low Priority - Educational institutions have been asked to do more than can possibly be done. Resources have never matched the mandates and there is evidence to assure us of no change in the immediate future. The major task for the professional educator is one of setting priorities, selecting those things to do which will provide the greatest benefits for students. Articulation efforts have been applauded for years but have not yet been considered of sufficient importance for commitment of resources to accomplish any significant gains.

5) Tradition - "The way it has always been" is a major barrier to change in any organization. While community colleges are thought to be some what "tradition-free" in their striving for recognition in higher education they have taken on the trappings and traditions of their nearby big brothers, in Virginia that is a tremendous amount of tradition.

6) Emphasis on the Negative - All too often, articulation efforts are lost in an over-emphasis on elimination or reduction rather than improvements and expansion of opportunities for students; on which institution must cut back its program rather than gains which are possible for both institutions. Admittedly, articulation may result in reductions, however, the major thrust should be on maximizing opportunities for students to progress through educational experiences in logical and expedient order.

7) Lack of Trust - Administrators and faculty alike have too few opportunities to develop any close relationships in secondary/post-secondary mixed sessions. Trust is seldom developed between counterparts in the various schools as "we-they" attitudes prevail and each assumes the other is attempting some "rip-off" when articulation proposals are presented by one school or the other.

8) All or None Attitude - It is great to be a perfectionist! As professionals, all of us should strive toward ideals but my experience with

articulation leads me to believe that this is one area (among many) where some air of realism is valuable. We have generally failed to capitalize on small opportunities or advances in one program or one school because we were waiting for the whole package. Perhaps the best we can expect is slow progress-one step at a time. That is certainly better than no progress while looking at an ideal.

9) Lack of Confidence - Frequently, unwillingness to articulate, which requires a display of practically all that is being done in a program, results from lack of confidence in what is being done. It all sides of articulation teams admit to imperfection and approach the process with an attitude that all are at the "negotiation table" to learn, far more may be accomplished.

There are other barriers or obstacles but those mentioned are sufficient to make it clear that articulation is no easy process and that little success can come from casual efforts. There are a number of potential aids to elimination of some of the barriers. Those aids range from the difficult to simple.

Potential Aids to Articulation

1) Competency-based Curricula - Perhaps the greatest aid today, the breakthrough which makes articulation really possible, is a widespread acceptance of competency based curricula at both the secondary and post-secondary level, While there are few examples of well developed programs allowing for such articulation the interest is there and evidence exists which indicates we should see considerable development in this area. Clearly developed and sequenced competencies become the most useful basis for any meshing of curricula between institutions.

2) Joint Vocational Advisory Committees - General vocational and specific curriculum advisory committees comprised of knowledgeable citizens provide a key resource from the development of appropriate competencies and aid in

articulation. In small regions choosing the same committee to serve each of the schools or in a larger region having chairmen of the secondary school committees comprise the college committee are possible ways to enhance articulation efforts.[3]

3) Ladder Type Curricula - In many occupational areas successful development of competencies which are clearly articulated between secondary and post-secondary will result in "ladder-type" programs with employment and salary steps. Both programs will be enhanced where students and faculty at both levels know the value of each program including advanced placement, job entry, pay differentials, etc.

4) Faculty Emphasis - Administrators can lay groundwork and assign resources to allow articulation to occur; however, any real articulation will be done by instructors. Teaching faculty must be assigned time and resources to work with advisory committees and counterparts (on school time - not Saturdays) to work out specific details for any interinstitutional agreements.

5) Faculty Coordination - Before faculty can do much which is productive, some means will have to be developed to bring them to some level of trust and cooperation. Colleges and school systems might accomplish such spirit through; (a) short term faculty exchanges; (b) long term joint appointments; (c) interinstitutional team teaching; (d) guest lectures for each other; (e) common interest workshops; and (f) joint preparation of teaching materials.

6) Cooperative Use of Facilities - Another opportunity to cooperate between institutions and enhance program articulation is through shared use of specialized facilities. Such sharing may be for entire programs when one institution lacks complete facilities and the other has portions of the day or evening when needed facilities are not used. Other sharing may be

for periodic use of specialized equipment such as numerically controlled milling machine or a computer.

7) Willingness to Change - Early agreement that both programs may have to make changes to facilitate articulation with equal acceptance that each program must maintain integrity and commitment to its major purpose. Colleges cannot expect secondary school programs to sacrifice development of marketable skills to become "feeder programs." In some cases, where colleges have withheld development of basic employment skills until the second year as a ploy to retain students longer, some re-thinking may be necessary. That action is not entirely unjustified when professionals have seen the long range benefits of degree program completion; however, articulated programs, will clarify for the students, benefits gained from program completion.

8) Development of Conformity - Some degree of conformity among secondary school programs is essential for any extensive articulation. Considering the difficulty of accomplishing any significant articulation in any cases, colleges cannot be expected to do much with four or five programs from the secondary schools where content and standards differ to any great degree.

I know from experience that it is easier to talk about articulation than to accomplish it. Of all the points made, perhaps the most important one to recount is that of capitalizing on small gains. Do not wait until all programs, or even all of one curriculum, is completely coordinated to implement whatever small successes are seen. Share even small gains with others to encourage expansion of efforts and eventual other gains.

Whether our reasons are the right ones, looking for what is best for students, or less professional ones, responding to economic and political pressures, now is a good time to get started on articulation. Because of their regional nature I tend to believe that the community college should play a major leadership role in getting the process underway, hosting

workshops and sessions. However, secondary school systems should not wait for the colleges to move. Now is the time to start regardless of who initiates the action.

[1] "The Articulation of Secondary and Post-Secondary Education," A Statement of Policy and Proposed Action by the Regents of the University of the State of New York, Albany: The State Education Department, August 1974, p. 5.

[2] Sullins, W. R., "Involving Curriculum Committees in Articulation," American Technical Education Association Journal, May-June 1977, pp. 4-6.

[3] Hoerner, J. L., "Advisory Committee Articulation Activities," Leadership Development Conference for Local Advisory Committees, Proceedings of the conference, Blacksburg: State Advisory Council on Vocational Education, 1976.

OUT-OF-STATE

MODEL PRESENTATIONS

ARTICULATION:

THE URBAN MODEL

by

Dr. William L. Ramsey
President
Milwaukee Area Technical College

The Milwaukee Area Technical College District is one of 16 districts in the Wisconsin System of Vocational, Technical, and Adult Education. It is the smallest in geographical area and is the most populous district with over 1.2 million residents. What is now the Milwaukee Campus was supported by the City of Milwaukee until 1969, when the District concept began evolving as a result of state legislation. Gradual expansion to include 21 public school districts has brought MATC to its present size.

MATC has developed into a multi-campus district utilizing a comprehensive campus in downtown Milwaukee and three specialty campuses in northern, western, and southern areas of the District. These regional campuses in the North, West, and South serve the District with specialized programs in certain technical, industrial, agribusiness, health, service, and business occupations, and at the same time, they fulfill the educational needs of the communities in each region. Except for the specialties, the second year of two-year programs is completed at the comprehensive campus.

Since its founding in 1912, the school has responded to the community's educational needs by establishing the programs and services that have made it a leader in vocational education. MATC continues to be responsive today, through such means as articulation and cooperation with the high schools, post-secondary institutions, business and industry, labor, and various other segments of the community.

Articulation begins with the VTAE governing boards. Members of these

boards at both the local and state levels represent the broad cross-section of people served by VTAE in Wisconsin. The Wisconsin Board of Vocational, Technical, and Adult Education consists of 12 members--three employers, three employees who do not have hiring or firing responsiblities, and three members whose principal occupation is farming. The three ex-officio members are the President of the University of Wisconsin Board of Regents, the State Superintendent of Public Instruction, and the Secretary of the State Department of Industry, Labor, and Human Relations...All but the three ex-officio members are appointed by the governor...

At the local level, the MATC District Board consists of two employers, two employees, two citizen representatives, and a school administrator. Members of the District Board are appointed by presidents of the high school district boards.

This unique organization of the VTAE boards assures communication and cooperation at all levels in the development and delivery of educational services.

Articulation with high schools and other post-secondary institutions has occurred mainly in the areas of advanced placement, coordination of instructional programs and continuing education courses, and shared facilities.

Articulation with high schools began in 1970 when a program of high school contract services was established. MATC furnishes teachers and facilites for public high school students who enroll in specialized classes at MATC by agreement with local public school administrations. Students continue at their high schools but receive credit for work successfully completed at MATC. Contractural agreements generally provide subject offerings that include evaluation of job skills and exploratory work experiences.

Since this program started, the number of students and participating high schools has increased. In the first year of operation, 1970-71, MATC served 544 students from six high school districts. Last school year, 945 students from 13 districts participated in the program.

Generally, the reports from users of the service are encouraging, and indicate that there will be increased use of the High School Contract Service Program throughout the District...

A new level of service will be reached with the completion of the proposed Youth Skill Center, scheduled for occupancy in 1979. MATC proposes to build a skill center based on the need for a centralized facility to serve youth 14 to 18 years of age and that would provide exploratory experiences in vocational-technical careers as well as training in specific skills. The occupational training programs offered in this new facility will be concentrated in those areas that are not generally available at the high schools. The center will offer training for both those students who are well-oriented to their school as well as the "drop-out" who is unsuccessful in high school. And finally, the center will provide job-oriented guidance services, cooperative on-the-job training opportunities, and placement services coordinated with skill training programs. The skill center will not replace any high school's curriculum and students would be required to take academic courses at their high school...

In another aspect of articulation, MATC works closely with vocational counselors and teachers to develop high school courses that dovetail with post-secondary vocational-technical programs at MATC and also to develop methods of advanced placement into post-secondary programs...

MATC made the initial advanced placement agreement in 1971. This agreement permits graduates to bypass MATC's basic typing, shorthand, and technical

drafting courses through completion of a competency-based challenge exam.

Some opportunities for advanced placement have been worked out for a number of other courses, the most recent in commercial art. High school graduates can bypass basic commercial art courses by successful completion of a portfolio examination and other competency tests...

A pilot articulation project at a suburban high school has resulted in a graphics curriculum that soon will enable graduates to receive credit for up to six courses in the MATC commercial art program...

MATC is working closely with the Milwaukee Public Schools in the development of their specialty high schools. Just as MATC's regional campuses specialize in certain occupational training programs, designated Milwaukee schools also emphasize health occupations, business occupations, technical and industrial fields, graphic arts, and other career areas. Our teachers and administrators are serving on ten technical advisory committees, which provide advice on such matters as development of curriculum, evaluation of training programs, equipment needs and acquisition, and sites for work experiences...

A new area of cooperation with high schools is the Skill Olympics held annually at MATC. The Skill Olympics attract high school students to compete in such skills as mechanical drafting, electronics, machining, welding, commercial art, printing, and even public speaking. Here is an opportunity for the students to demonstrate the knowledge and skills they've learned, while industry becomes more familiar with the skill training courses offered by the schools. Teams of instructors from MATC and the high schools plan and supervise the events. Representatives of industry and labor organizations judge the events and present awards for the best work.

These and other articulation efforts have proved successful because of

the cooperation between MATC administrators and public school administrators, and between MATC instructors and public school teachers. We have found that personnel involved in articulation efforts at both the secondary school level and at MATC are willing to work together to achieve closer relationships...

Since 1972 MATC has cooperated with other VTAE schools and the University of Wisconsin System on two joint administrative committees.

One is the Joint Administrative Committee for academic programs. The purpose of this committee is to evaluate present and future credit programs that lead to a degree, diploma, or certificate before they are considered by the Wisconsin Board of Regents or the Wisconsin Board of VTAE.

The second is the Joint Administrative Committee on Continuing Education. The purpose of this committee is to evaluate present and future non-credit programs that provide continuing education units in order to avoid unnecessary duplication...

MATC now has agreements with the University of Wisconsin-Milwaukee and Marquette University that allow either of these institutions to offer courses at MATC regional campus centers as long as the courses do not conflict with MATC's. A similar arrangement has been made with Nova University, which conducts classes for MATC faculty enrolled in its off-campus doctoral program...

Another area of cooperation, this time with seven other colleges and universities in the Milwaukee area, has involved our Admissions Department. MATC's Admissions officer and representatives of the other institutions have formed a consortium to find ways of reaching adults who cannot be reached through traditional recruiting methods. As a result of the consortium's explorations and discussions, the various learning opportunities offered by

the universities and colleges have been compiled and distributed throughout the Milwaukee area...

Articulation is by no means limited to other educational institutions. Since the primary mission of MATC is occupational education with emphasis on "hands-on" training, the administration works closely with advisory committees to start new programs and keep up with changes in business, health occupations, and industry. Advisory committees consist of employers, employees, and representatives of labor organizations and professional associations...

Improvement and expansion of educational opportunities for the handicapped, disadvantaged, and others with special needs is the focus of MATC's Office of Urban Concerns. The department works on a management-cooperative basis with delegate agencies in developing programs and services which are operated with funds provided by the federal government and allocated by the MATC District Board. Delegate agencies such as the Jewish Vocational Service, United Migrant Opportunity Services, Milwaukee Urban League, and Opportunities Industrialization Center cooperate with MATC in these efforts. Prevocational education, adult basic education, and consumer education were among the programs offered to more than 6,000 persons during the past year...

MATC regularly cooperates with business, industry, and agencies to teach their employees new skills. The training courses range in length from a day to a full semester and many are set up to fit specific requirements of the firm. For example, classes are held at times that fit into the firm's work schedule and the content is geared to the firm's particular needs. MATC's facilites are used for the instruction in most cases; but sometimes courses are conducted at the firm's plant or offices. Some examples of these courses are:

1. Courses in nutrition, crafts, printing, and remedial reading, science, and mathematics, as part of a rehabilitation program for physically-dependent persons;
2. At the request of the Wisconsin Job Service, courses in machine shop and related subjects for a group of Indo-Chinese refugees;
3. In cooperation with Allis-Chalmers, courses in combustion engines, electronics, agribusiness, hydraulics, and English for nine technicians from the Republic of Sudan, Africa.

A training course believed to be unique in industry helped quality control personnel at a General Electric Medical System plant learn a new method for inspecting parts and interpreting production drawings.

More recently, MATC began training unemployed persons who lost their jobs because of competition from foreign-made goods. Three groups of former American Motors Corporation employees are learning machine shop and welding skills, while other trainees, formerly employed by various other area firms, are "slotted" into regularly-scheduled courses on an individual basis. The training is funded under the Trade Readjustment Act and is offered in cooperation with the Wisconsin Job Service, which is responsible for selecting the trainees and placing them in new jobs.

MATC has initiated a training program that will enable employees in the plastics industry to upgrade to midmanagement positions. The employees attend evening classes to study basic shop and supervisory development courses. Later, the trainees will be able to earn additional credit and learn additional skills on the job...

While many employees receive their training at MATC, a number of students work part time in business or industry to earn credit toward an associate degree or diploma. This combination of on-campus instruction and related

employment, referred to as Cooperative Education, provides relevant experiences in the world of work...

MATC cooperates with employers and the State Division of Apprenticeship and Training to provide related instruction for apprentices. During 1976-77, 340 persons who were enrolled in apprentice training courses at MATC completed their indentures to become journeymen in such trades as auto body repair, steamfitting, sheet metal, painting, meatcutting, plumbing, bricklaying, and carpentry...

In this presentation, we have reviewed the major articulation projects at Milwaukee Area Technical College. These are some of the ways that MATC meets the needs of the community, and by providing such services, it makes the Milwaukee area a better place in which to live.

THE WILLIAMSPORT AREA COMMUNITY COLLEGE

THE MERGED ARTICULATION MODEL

by

Dr. William H. Feddersen, President

Williamsport, PA

Introduction

The Williamsport Area Community College represents an unusual, if not totally unique articulation model. We call it "total articulation" or the "merged model" since WACC is really two schools in one - a secondary area vocational technical school and a public comprehensive community college. WACC has a long history as a pioneer in both vocational education and a promoter of cooperative programs with business, industry, and government.

The Williamsport Area Community College, which now serves over 440,000 people in ten North Central Pennsylvania counties, plus students from other counties, states, and countries, was born in 1914 as a small industrial arts shop at the Williamsport High School. In 1940 the adult school and high school vocational programs merged to form the Williamsport Technical Institute. And in 1965, in response to enabling state legislation, WTI became the Williamsport Area Community College.

WACC'S Organization and Enrollment

Today WACC remains both a community school and college, dedicated to serving both individual and community needs. Our community consists of the largest geographical community college service area in the state, ten counties, and specifically, twenty school districts within these counties. The twenty districts, through an Executive Council, elect a 15 member governing board. The governing board approves policies and programs for all elements of the institution - secondary vocational programs, post-secondary degree & certificate programs, community & continuing education programs, student & career development services,

and administrative services. The College currently serves more than 8400 students each term through its various programs and courses. 3300 of these students are in 48 post-secondary degree and certificate programs, 3800 in community education courses, and 1300 in 19 secondary vocational programs. In addition, several thousand additional people are served each year through special programs and services, like our Career Mobile Coach, Career Development Center, and Adult Career Counseling Education Program.

State Level Organizational Structure

As in many states, Pennsylvania has a fragmented system for delivery of vocational education programs and services. There are 76 public area vocational technical schools (AVTS), 14 community colleges, 14 Penn State branch campuses, and many smaller fragments too numerous to mention. Each segment operates under different laws, regulations, financing systems, and reports through a separate bureaucratic structure. Since education is a state function, each kind of educational institution was created by the state and is a reflection of the state structure. Education's historical traditions as reflected in today's structure obviously work against articulation and cooperation between secondary and post-secondary education.

A significant chasm between basic and higher education has been created at all levels - local, state, and national. Differences in regulations, historical traditions, certification requirements. planning areas, budgetary methods, financial formulas, accounting systems, data reporting methods, and participation in separate professional organizations result in further separation and an inability to comprehend only the system we are part of, and to distrust the unknown. Dividing the educational kingdom has created turfs which in turn has resulted in inbreeding, parochialism, suspicion of outsiders, and a loss of the ability to be objective.

When the way we have structured education results in the fostering of deeply ingrained and negative attitudes among professionals and bureaucrats about other

levels and types of education, then it is time to re-examine that structure. When professional educators lose sight of their common purpose, we are in trouble. When educational laws, regulations, and organizational structure take on a life of their own and become an end rather than a means, it is time for a change.

We created these problems. We created a dual educational system with its elements of duplication and inefficiency. And we can solve these problems through a change in our own thinking, by actively working to adjust the system to serve the needs, and by starting in some small way within our own community and building upon successful cooperative efforts.

Definition of Articulation

Such efforts are not easy and certainly are fraught with perils. Real articulation between secondary and post-secondary institutions, for example, is extremely difficult. It's easy to talk about cooperation and coordination, but much harder to put into practice. There's a lot to overcome.

I define articulation and cooperation as efforts to overcome what we have structurally created. Articulation builds bridges and linkages to put back together what we have taken apart. The time has come for closely coordinated and articulated efforts between and among different educational institutions, business, industry, unions, government, and community agencies; not because it's nice, but because it's necessary. Taxpayers and student consumers are demanding accountability, efficiency, cost-effectiveness, and results. They are reminding us that they foot the bill and they are the ones who are short-changed by a lack of cooperative efforts and programs.

Institutional Commitment to Articulation

If an institution really believes in the concept of cooperation, it shouldn't be afraid to state that belief in writing. An examination of institutional policies which communicate its mission and goals should reveal an institutional commitment

to articulation. If you read WACC's catalog or policy handbook, you would find the following statements:

As Part of Philosophical Platform: "We believe in an integrated approach to learning where education and the world of work function in a cooperative atmosphere."

As Part of Mission Statement: "We are dedicated to working with other agencies in developing the full potential of individuals and communities in our area."

As Part of Institutional Goals: "Cooperate with other institutions, organizations, and agencies in formulating and implementing viable programs and services."

WACC Articulation Model

WACC's articulation model consists of five elements: 1) The Community College and AVTS 2) Business, Industry, and Government 3) Public Schools 4) Four-vear Colleges 5) Adults and Community. For each area that the College articulates with specific policies, programs, and agreements have been cooperatively developed to the benefit of both parties. Because of the number and extensive nature of various arrangements, each will be catagorized and listed briefly rather than described in detail.

Articulation with Public Schools

Through our Articles of Agreement with the 20 school districts which sponsor the College, WACC provides secondary area vocational technical school services to 12 districts (17 high schools). 19 secondary vocational programs are available at the College on a nine week rotating basis with the home school. In a number of programs facilities and equipment are shared between secondary and post-secondary students.

Through a Professional Advisory Committee of 20 school superintendents we communicate plans, discuss proposals, review budgets, develop schedules, and share information with each other. This group meets monthly. We also meet on a regular basis with high school principals and high school guidance staff.

Through a newsletter called Sponsor Peview we communicate College news monthly to 180 public school board members representing our 20 participating school districts.

Through our Advanced Placement and Credit by Examination policies, students from the public schools, other AVTS school throughout the state, and our own secondary vocational program who have completed specific competencies can be given credit for their accomplishments. These policies help to avoid duplication between secondary and post-secondary education, save time and money, and provide motivation for furthering one's education.

Through dual membership on program advisory committees, we were able to develop a dental hygiene program which articulates with a dental assisting program at an AVTS school in our service area.

We are now working with SUN AVTS with the support of a federal grant on the joint development of a competency based articulated secondary and post-secondary programs in carpentry, electrical construction, and welding. Over 800 students are enrolled in these programs at SUN AVTS, WACC AVTS, and WACC Post-secondary.

A Multi-Skills Program of an Intermediate Unit is housed on campus. Joint staff development has taken place to articulate special education and vocational education needs and expertise which has resulted in the mainstreaming of handicapped students into our regular vocational shops.

Public school districts allow us to use their facilities and we provide them with the same opportunity.

Many school Instructional Work Projects (grading with heavy equipment, masonry projects, construction projects, etc.) are completed each year to help sponsor school districts improve their facilities and site for the costs of materials only.

The College provides special services and operates special programs for area public schools. Examples include a Youth Employment and Training Program for potential high school drop-outs, a Career Development Center and Mobile Van, Nature Trail and Environmental Awareness Program on our Earth Science Campus, and an Annual Business Symposium.

Articulation with Business, Industry, Government, and Non-Profit Agencies

Each program or occupational cluster of programs has an Advisory Committee composed of experts in the field. These committees articulate with staff in manpower planning and joint curriculum development, review, and revision.

We cooperate with area unions who use our facilities for apprentice training programs.

The College works with industry to develop short courses to meet a particular need for training new employees, re-training, and up-grading of job skills. These courses can be in-plant or on campus.

Business and Industry cooperates with the College by donating valuable equipment, supplies, and materials which we can use in our vocational programs. This type of partnership saves the College thousands of dollars each year while enriching our instructional programs.

Our highly trained technical faculty occasionally assist business and industry by providing consulting services.

Business and industry cooperate with the College to provide on the job instruction through our secondary and post-secondary cooperative education programs.

Federal prisons contract with the College to teach vocational skills to inmates. We operate a Study Release program with the Allenwood Prison Camp and a Behind the Walls Education Program at the Lewisburg Federal Penitentiary.

The College contracts with two private cosmotology schools for cosmotology instruction for over 200 of our secondary vocational students.

Clinical experience for our Allied Health programs is held in area hospitals, nursing homes, and day care centers.

Business and industry provide special scholarship and recognition awards for students in various programs.

Articulation with Public, Adults, and Community

We provide accessibility to programs and services through a policy of decentralization and outreach programs.

In addition to our Advanced Placement and Credit by Examination policies, the College has a Credit for Life and Work Experience policy in order to recognize and given credit for knowledge and skills previously acquired.

Career information, testing, and counseling are available through our Career Development Center and our Adult Career Counseling Services Program, a brokering service for all adults.

Many Community Instructional Work Projects are completed each year for non-profit agencies like the Red Cross, Y.W.C.A., Little League Baseball, Crippled Children's Society, City of Williamsport, etc.

College facilities are used by the Community, and in turn, the College uses Community facilities.

Articulation with Four-Year Colleges and Universities

WACC has a Cross-Registration Policy and Procedure with Lycoming College, a private four-year Liberal Arts College in Williamsport. Both colleges developed the policy and we jointly administer it. It allows students to take courses at either institution at no additional cost to the student.

Joint review of programs and sharing of information takes place through an Interinstitutional Coordinating Council consisting of eight colleges and universities in the region. WACC is the only community college.

Sharing of facilities is practiced. We have used facilities at two area state colleges and they have used our facilities.

In order to avoid duplication, joint curriculum planning is beginning to be programed with area state colleges. Even administrative ideas and expertise have been shared. For example, instead of developing our own physical assets inventory system we used an existing model at Lock Haven State College. Data is stored at Lock Haven and reports generated on their computer.

WACC, Bloomsburg State College, and Luzerne County Community College have held a number of joint planning sessions and approved a set of Guidelines for Cooperative Action.

Advantages of Merged Secondary/Post-Secondary Vocational Model

Although there exists certain inherent limitations and some disadvantages to a Merged Articulation Model, the advantages far outweigh the disadvantages. The differences in background, experience, professional affilations and other factors mentioned earlier between basic and higher education can certainly create in miniature the same kinds of problems at WACC that we find at the state level. If a person's commitment to cooperation and the common cause we all share is not greater than his commitment to a particular program or vocational ideology, then that person will not work towards the goal of successful articulation. The attitude of the faculty and staff will determine the degree of success we have.

Because we are one institution it is possible for our secondary and post-secondary faculty to become involved in joint curricular planning. The College is working to implement what we call a Ladder/Lattice Curriculum concept. A Student starts at whatever "rung" on the ladder is appropriate to his/her abilities and previous performance. As one elects to progress on the educational ladder, there are various exit points or lattice areas where he or she may leave the institution and enter the job market with specific job skills and levels of human development. Likewise, a person who is working may re-enter the College on a full-time or part-time basis to improve technical and personal skills. The Career Ladder/Lattice Model allows for open-ended options for students,

recognizes and offers credits for competencies, avoids duplication, and saves time and money.

Another major advantage of the Merged Model is lower overhead and capital costs through one administrative and support staff, one governance board, and the sharing of equipment and facilities. However, the biggest advantage is that despite occasional problems, it works. It works because the institution, the Board of Trustees, and the Administration are committed to a policy of cooperating at all levels with a variety of agencies, not just to avoid duplication and reduce unnecessary costs, but to build bridges between the College, area schools, business, industry and other organizations in order to provide a better educational program and improved educational opportunities for all.

In summary, WACC's ARTICULATION Model represents:

Accountability to Taxpayers/Public

Responding to the Needs of Students

Total Articulation - Two Schools in One

Integration of Secondary & Post-Secondary Vocational Education

Cooperation & Coordination with Other Agencies

Unified Governance and Policy-Making Structure

Ladder-Lattice Curriculum Concept

Advanced Placement & Agreements with Other Agencies

Trying the Untried - Taking Risks

Interested people working together

Ongoing process

No unnecessary duplication

ARTICULATION: THE RURAL MODEL

by

J. D. Powell
Director
Coosa Valley Vocational Technical School
Rome, Georgia

What we have achieved in Rome doesn't look nearly as impressive now as it did in 1970. The passing of time has a way of doing that to things. We established a joint enrollment program between a Junior College, Floyd Junior, and an area vocational technical school, Coosa Valley Tech.

It wasn't the first program that could be generally described as a joint enrollment effort between a college and a vocational school and in the last few years there have been quite a large number of other cooperative efforts that are good and worthy of examination.

Our program has several rather unique features and was accomplished under some unusual conditions that still add an extra dimension to our effort.

In Georgia, public post secondary education is administered by two different state boards, both are appointed by the Governor and both compete for state funds. The Board of Regents controls all public colleges, including Floyd Jr. College. The State Board of Education controls the elementary, secondary and the post secondary area vocational technical schools including Coosa Valley Tech. In 1970 the colleges and the area vocational technical schools were not encouraged to cooperate or communicate on anything.

Rome, Georgia is a nice, old town of 35,000 people, almost in the center of a triangle with the points of the triangle at Chattanooga, TN, Atlanta, GA, and Birmingham, AL. We are, in Rome, 650 feet above sea level in the foothills of the Appalachian Mountains and we have 75,000 in Floyd County and

about 200,000 people in our trade area. We have an abundant water supply with two rivers and an excellent highway and railroad system. It's an old foundry-textile town with a good diversity of industries, two senior colleges and it is the trading, manufacturing, cultural, medical and educational center of northwest Georgia and northeast Alabama.

Floyd Jr. College was founded in 1970 and in the past (8) eight years has grown to the present enrollment of over 1400 students. They serve an additional 6,000 people each year through continuing education programs.

They offer the first two years of a broad based liberal arts program as well as pre-professional, education and science programs.

They have 41 transfer programs, 15 career programs, special studies in 4 areas and continuing education - public service programs.

They are accredited by the college commission of the Sourthern Association of Colleges and schools and are funded by student tuition and fees, state and federal grants and by state tax appropriations.

Coosa Valley Tech was founded in 1962 and in the past 16 years has grown to the present enrollment of over 1300 students. We serve over 5600 students each year and are controlled by a local Board of Trustees under the State Department of Education.

We have 21 programs in the areas of trade, technical, business and health. These are one and two year programs and we also have short-term programs, remedial programs and CETA classes. These are administered under three divisions, day, evening and off-campus.

We charge no tuition, but students do pay for expendable supplies. About 90% of our operating funds are state and federal and we do receive some local support.

We are accredited by the Occupational Commission of the Southern Association of Colleges and Schools.

In Georgia the area vocational technical schools have more local control than in other states and you will find each school is more of a reflection of the community in which it's located than systems that have more state level control.

Coosa Valley Tech has one purpose, one objective and that is to train for employment. We are a very specialized form of education, very narrow in scope and extremely careful to limit ourselves to those activities that are associated with skill development and contribute directly to helping people become employable. We have been successful because we have assembled the finest instructional staff in the state of Georgia.

Now I would like to tell you why we began a joint enrollment program with Floyd Jr. College, how we went about it, and how the program is working.

First of all, there always has been and there has to be today, a demonstrated need in the job market for graduates of a particular joint program before we'll even consider it. There never has been and there never will be, I hope, a rush to get a lot of joint programs on paper without consideration of student needs and the needs of the job market.

In establishing our joint programs, we at Coosa Valley Tech saw employers sending graduates of some of our programs back to school because they had potential for promotion and greater responsibility. In some businesses and industries our graduates were not considered for promotions and even initial hire because they did not have college training. Their technical skills were fine but the companies felt that college would add the extra depth that would help them contribute more as employees but also get more personally from their employment.

We began our joint enrollment programs because we found we could do this in parallel with our existing programs, without any new facilities, personnel or any additional cost. We decided very early that in the development of our institutions we would avoid duplication of facilities, personnel and equipment and try to provide for our local community as many educational and training opportunities as we could for each tax dollar.

Another consideration was that Floyd Jr. College had put together an excellent staff, facilities and equipment and was adhering to the highest standards possible in their instructional program. I'm sure that the excellent reputation Coosa Valley Tech had earned was encouraging to Dr. McCorkle and his staff at Floyd Jr. College.

One last reason why we began these programs, was the unusual atmosphere of mutual respect and trust and the open, honest communications that was established between the schools at all levels. Perhaps it was the community in which we're located or perhaps it was timing--it could have been a number of things, but I suspect it was more because of personalities involved and our practical approach in operating our schools and being responsible members of our community.

How did we go about it? First of all, we received no encouragement or help for the state level of our administration. We began with meetings of the administrative staff from both institutions. We agreed on basic philosophical concepts and began to involve other members of our staff as we explored the various possibilities of joint enrollment.

We agreed that the basic core curriculum of the college would be a part of each joint program.

We agreed that the technical skills to be included would be determined by the employment objective.

We agreed that, in general, the skill development-laboratory type instruction would be taught by the technical school and the academics would be taught by the college.

We agreed that approximately one-half of the students work would be done at the college and one-half at the technical school.

We agreed that we would try for the maximum flexibility in scheduling with credit given retroactive to former students and students presently enrolled.

We agreed that the students would meet all entrance requirements at each school and be assigned an advisor at each school.

We agreed that credits would be transferred as a block without translation into clock, quarter or credit hours.

We decided to begin with secretarial science in 1970. At the technical school we had a good, strong, one year secretarial program and about all we did to design the associate degree curriculum was to add the college core curriculum.

We identified the employment objective and involved the instructional staff at both institutions. We signed letters of agreement and then notified our state boards of what we had done. As I recall, they sort of ignored us since we didn't ask for additional funds.

In 1972 we began to design joint programs in mechanical engineering technology and electronics technology, but this time we invited Southern Technical Institute (a branch of GA Tech) to participate on the same basis with all work leading toward a four year bachelor degree.

After a thorough investigation and many meetings at all levels these programs were begun.

In 1973, our state governing boards saw for the first time the need for programs such as the ones already in operation at our institutions. A statewide committee was appointed consisting of college and university deans and directors of area post secondary vocational technical schools. All three of our institutions were represented on this committee and a policy statement was developed and later adopted by both governing boards.

Since that time, we have added a joint program in Data Processing and have several others under consideration. One interesting thing has happened recently that should be a part of this "How do you go about it" discussion. The state governing boards have invited us to consider adding a new program in dental hygiene as a joint program.

Now the question, how is it working? In proportion to our total enrollment, these programs have not attracted overwhelming numbers of students. We can usually count 50 to 100 students actively involved at any one time but the truth of the matter is that we really don't know. All of these joint programs have parallel programs at each school and the students can be enrolled concurrently or take all of their work at Coosa Valley Tech first or vice versa.

We have provided an additional educational opportunity for our students at no additional cost to the taxpayers.

We have filled a need for local business and industry with existing resources.

We have established that quality work can be recognized by different components of our educational system without those defensive, self-serving devices that often penalize students.

We have found that these programs can be established without loss of identity or the lowering of standards in either institution.

We have laid the foundation for further cooperation in dealing with existing or emerging employment problems in our community.

We have found, in our community, that associate degrees in every program at the vocational technical school are not needed or wanted.

We have found that articulation is an attitude--an attitude that leads to a constructive activity.

I have been asked to comment on the status of articulation between secondary vocational education and post secondary vocational education in the operation of our school. We have not received any national recognition for our efforts in this regard but we have made some progress.

Our initial efforts here also began in 1970 when a statewide conference was called for all secondary and post secondary administrators. The conference participants were presented with the task of providing suggestions on how secondary programs could better prepare students for post secondary programs and how post secondary programs could grant advanced class standing to secondary students.

The suggestions made were in the general categories of improved communications, curriculum revision and changes in instructional methods. Improved communications were recommended at all levels of school operations but especially at the instructor level. Curriculum revision involved the lining-up of instructional activities so that a student could progress from secondary to post secondary in a sequential order. The recommendations concerning instructional methods were in recognition of the need to move away from group instruction to an individualized instructional method on the post secondary level. It was thought that this would be necessary in order to grant advanced class standing.

Regional meetings were held in northwest Georgia and we could begin to see improved student mobility almost immediately. As instructors and coordinators began to talk with each other about their programs and students, they were able to identify opportunities that were already in existance and also develop strategies for solving problems that prevented articulation.

Since the time of those initial meetings the instructional process in our school has been almost completely individualized and communications between schools have improved every year.

We're at the point now where advanced standing can be given in almost every program especially where skill development is involved. We can pick a student up at any point in their training and take him or her just as far as they want to go. We're still having problems in programs that are not completely individualized and in granting credit for those courses in theory and related materials that support the skill development.

Articulation should be easier in vocational and technical education than any other type of education because for us the bottom line is job placement. Each training situation should involve a relationship between the individual student, the instructor and an employer. The objective should be to move the student as quickly, as efficiently and as effectively as we can toward that employment goal. Time segments, such as semesters, quarters, credit hours, etc., lose a lot of their traditional meaning when applied to a training situation such as this.

The student that demands credit for every experience and every hour of previous instruction is probably not bringing to our job training situation an attitude that's going to be as constructive as it could be in achieving our mutual objective or job placement. And by the same token, our training

programs should not have to be propped-up by unnecessary repetition or artificial hurtles.

I'm excited about the future of education in this country. Based on our experience, I see us emerging from an era of doubt, confusion, waste and hypocrisy to a system that deals with things as they really are and helps solve problems instead of creating them.

I think that some day our educational system will be like a giant super market, where students may select the individual components of their education or training and move within the system toward their personal goal without unnecessary repetition of subject matter.

In observing articulation efforts in our state and around the country, I found this to be true; if you're looking for reasons not to cooperate and articulate, you most certainly will find them. The woods are full of excuses that haven't been used yet.

And then on the other hand, if this is what you really want for your institutions, if you're willing to face the problems and work through them, then you most certainly can be successful. We have proved that in Rome at Floyd Jr. College and Coosa Valley Tech.

SUMMARIES OF

SMALL GROUP ACTIVITIES

Small Group Activity I
Problem Identification

One of the major objectives of the workshop was to identify the problems and concerns that presently exist when students attempt to move from secondary to community college vocational programs. Each participant was instructed prior to the workshop to assess various problems that exist in their own setting and bring a list of such to the workshop (see Appendix A).

The workshop participants were divided into clusters according to the geographic and demographic characteristics of their institutions (see Appendix B).

During the first small group acitivity the participants were assigned to identify problems that hinder the smooth transfer of students from high school vocational programs to community college programs. It was suggested that the problems be categorized per the following (see Appendix C).

a. Curriculum
b. Instruction
c. Evaluation
d. Staffing
e. Facilities
f. Equipment
g. Adminisration
h. Scheduling
i. Location
j. Other

Appendix D is a computation of the problems identified during Activity #1.

Small Group Activity II
Strategy Identification

Another objective of the workshop was to identify potential strategies for the more ctritical problems identified.

During small group activity number two (see Appendix E) the participants were asked to first rate the degrees of criticalness of problems identified in the first session. Appendix D shows the criticalness rating of the identified problems.

Secondly, the participants were asked to develop potential strategies for the most critical problems identified. Appendix F displays the various strategies that were developed in Activity #2.

Small Group Activity III

Identification of Workable Articulation Strategies

During small group activity three (Appendix G) of the participants were instructed to refine the strategies identified during Activity two, develop additional strategies and indicate the appropriateness of each strategy to rural, urban or suburban settings.

The six groups as a whole indicated that all of the identified strategies have application in rural, urban and suburban settings.

Several comments, suggestions and refinements regarding the various strategies were, however, generated during activity there. The following is a composite of the various comments.

A. Curriculum Recommendations

1. In order to foster greater coordination between secondary and post-secondary institutions, joint advisory committees should include members from the cooperating institution(s). A basis for joint craft advisory committee articulation should be the V-TEC and IDEC materials.

2. The development and updating of curriculum should become a joint activity among participating institutions. State Guidelines should be distributed to aid in the establishment of craft advisory committees in the hope of determining desired duplication as well as competencies needed at each level. This guide should further present justification and a listing of articulation advantages.

   Students transfers from secondary programs should be provided with a list of competencies developed by the high school instructor with input from

employers as a supplement.

Mutually acceptable curriculum guides as well as an exchange of materials should be developed. Each level should identify the competencies needed for advanced placement which are mutually acceptable.

The overall advisory committee should consist of top level administrators from both institutions whose responsibility it will be to develop local guidelines for articulation of craft programs.

B. Instruction Recommendations

Since there seems to be a lack of communication between both levels of education, groups have recommended the development of a system to increase the flow of information between institutions. The joint committee use seems to be most popular and emphasis is placed upon the allowance of release time for members. Joint division level committees should strive to develop cooperation between themselves and the joint discipline committees.

Joint staff development plans should be implemented to assist in articulation efforts at the divisional.

C. Evaluation Recommendations

Through a system of joint curriculum development and evaluation among craft committee members, joint evaluation procedures should be mutually determined to truthfully measure the desired competencies. Levels desired for transfer or advanced placement should be in line with state and federal requirements.

Program evaluation should be assisted by the joint advisory committee for the discipline in order to maintain standards. Follow-up data on student progrss can be aided through the advisory committee usage.

D. Staffing Recommendations

The groups indicated that there needs to be a system developed for the mutual exchange of staff members. This recommendation should eliminate the current lack of understanding and trust and may aid in the establishment of mutually acceptable goals. Plans should be considered for overcoming geographical boundaries.

E. Facilities

Plans and procedures for the mutual development and exchange of facilities should be made through the divisional advisory committee. Guidelines should represent the input from both the divisional as well as discipline committee members.

Systems for sharing costs (repair, maintenance, materials, etc.) should be predetermined prior to use. Liability for use agreements should be further examined and guidelines developed for sharing of both facilities and faculty.

F. Administrative Policy Recommendations

In order to facilitate a greater committment to articulation, groups recommended the development of communication channels between the chancelor and state superintendents. Additional lines of communication are needed between community college presidents and local superintendents in order to review and provide input into strategies developed.

Joint in-service meetings for faculty and administrators and specialized instruction is requested for subject area facultcy. Many administrators further requested in-service-credit for instruction received. Further workshops were suggested to promote committment to articulation along with further model presentations and to guide in the development of policy agreements between school districts, colleges and other agencies.

Advisory committees should be developed to recommend or suggest policy design. There should also be provision for overlapping personnel on advisory committees in include various agencies.

Funding formula need to be revised to encourage articulation of off-campus courses and to encourage interfacility usage.

G. Vocational counselors are encouraged to be included in planned activities in order to assist in the dissemination of vocational brochures to both students and academic faculty members. A preparational program should be developed to provide vocational counselors with direct industry in-service contact to assist in the development of slide presentations concerning the efforts of both cooperating institutions.

It was further recommended that the appropriate state/division include vocational-occupational training and education in the certification of guidance counselors.

The public relations efforts concerning articulated program planning should be coordinated throughout the various media within the community. Brochures, slide presentations and newsletters may assist in this promotional effort.

APPENDICES

APPENDIX A

ARTICULATION WORKSHOP
FOR
KEY SECONDARY AND COMMUNITY COLLEGE
VOCATIONAL EDUCATION PERSONNEL

TO: Articulation Workshop Participants

SUBJECT: Pre-Workshop Problem Identification Activity

In order to make the articulation workshop be as beneficial as possible, participants are asked to identify various problems and concerns that presently exist regarding articulation between secondary and community college vocational programs within their own setting.

To help you evaluate your particular setting we are suggesting that you talk to your colleagues and seek responses to the following as a guide in making your assessment. Please bring these comments with you to the workshop.

1. Identify the present vocational/occupational program offerings in your system for which there are similar programs at both the secondary and community college levels.

2. What particular programs have been experiencing difficulties when students attempt to continue training in the same program area at the community college?

3. What specific problems or concerns are expressed by instructors, students, administrators, parents, etc?

4. What suggestions do you or your colleagues have for solving the above identified problems?

APPENDIX B

SMALL GROUP ASSIGNMENTS

Group #1 - Conference Committee Room E - Monday and Tuesday; Conference Room F1 Wednesday

Julian Campbell, Chairperson
Tom Burke
Fred Arwood
Carl Jackson
Henry Nickels
Harold VanHook
E. Al Colley
C. P. Curcio
John Basham
Edwin Hardison
Virginia Russell

Group #2 - Conference Board Room D - Monday and Tuesday; Conference Room F2 Wednesday

Lois Wells, Chairperson
William Blackwell, Jr.
James Campbell
James Dow, Jr.
John Hudson
Maurice Lang
John Long
Robert Lumsden
Ed Morse
Leon Crawley

Group #3 - Conference Committee Room G1 - Monday, Tuesday and Wednesday

Richard Carter, Chairperson
Holland Boaz
Charles Curry
Levi Galloway
Thomas Mayfield
Winston Underwood
Charles Vaughan, Jr.
J. Edward Claunch
P. D. Simms
George Shelton
Hazel Wilhoite
Charles Davis

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Group #4 - Conference Committee Room G2 - Monday, Tuesday, and Wednesday

Douglas Warren, Chairperson
Don Brookman
Sidney Harvey
H. P. Jennings
Luther Shipman
Bill Snyder
Edwin Wilson
Jennie Seaton
Jim Horan, Jr.
Rosalyn Lester
Ned Swarty
Dick Velzy

Group #5 - Board Room - Monday, Tuesday and Wednesday

Roger Beeker, Chairperson
Elvin Adams
Reon Lambert
Joe Berryman
C. Bruce Chandler
W. Sherrill Coleman
Homer Duff
Jean Epps
Charles Franks
Roy Loving
Cecil Phillips
William Sharpe
Patrick Sherman
David James
O. E. Ware

Group #6 - Committee Room - Monday, Tuesday, and Wednesday

Ben Baines, Chairperson
William Bridges
Paul Beresh
Edward Cooke
Peter Fulcer
Bobby Kennedy
Michael LaBouve
Charles Melton
Susan Meyers
David Siewert
E. P. Tangman
R. W. Woodbridge
Robert Grymes
Isaac Ridley
Carl Jorgensen

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Problem Identification

Small Group Activity #1

The purpose of this activity is to, through individual thinking and group discussion identify as many articulation problems as possible. Your list of problems should include any and all obstacles that serve as a detriment in making for a smooth transition from high school vocational programs to community college occupational programs. Areas of concern may include: curriculum, instruction, evaluation, staffing, facilities, equipment, administrative policy, scheduling, location, etc.

Objective: To identify problems that hinder the smooth transfer of students from high school vocational programs to community college programs.

Instructions

1. Through the chairperson, identify a listing of all possible problems. Work from the pink pre-workshop problem identification sheets.

2. It is suggested that you identify the problems by the following areas:

   a. curriculum
   b. instructional
   c. evaluation
   d. staffing
   e. facilities
   f. equipment
   g. administrative policy
   h. scheduling
   i. location
   j. other

3. The recorder is to prepare the final list at the end of this session for duplication.

APPENDIX D

Articulation Problems

Identified in Small Group Activity #1

Instructions:

Rate the following articulation problems that were generated in Activity #1 as to the degree of criticalness.

	Degrees of Criticalness		
	Most	Moderate	Least
A. Curriculum			
1. Repetition	X	X	
2. Variation in standards	X	X	
3. Availability of programs		X	
4. Lack of continuous programs		X	
5. Acceptance of high school credits		X	
6. Coordination of curriculums	X		
7. Needs assessment surveys		X	X
8. Curriculum Guidelines		X	
9. Continuous updating of curriculum		X	
10. Textbooks		X	X
11. Duplication	X		
12. Uniform preparation from high school to high school		X	X
13. Identification of competencies	X	X	
14. Communication of course content among institutions	X	X	
15. Joint articulation committee needed	X	X	
16. Performance objectives unclear		X	
17. Location for clinical experiences		X	X
18. Programs designed to accomodate advanced placement	X	X	
B. Instruction			
1. Needs assessment of students	X		X
2. Use of coop technique		X	X
3. Lack of specific course objectives	X	X	
4. Lack of quality		X	X
5. Need joint teacher development	X	X	
6. Examinations for advance placement	X	X	X
7. Need self paced instruction		X	X
8. Certification		X	X
9. Lack of communication between teachers at both levels	X		

	Degrees of Criticalness		
	Most	Moderate	Least
C. Evaluation			
1. Evaluation of work performance	X	X	X
2. Lack of standards for evaluation	X	X	
3. Credibility between instructors in evaluating students		X	X
4. Standardized instruments		X	X
5. Lack of student evaluation		X	X
6. Need joint evaluation		X	X
7. State and federal requirements	X	X	X
D. Staffing			
1. Inconsistent salaries		X	X
2. Inadequate salaries		X	X
3. Lack of mutual trust	X	X	
4. Need for upgrading occupational staff		X	X
5. Lack of secondary time flexibility	X	X	
6. Day and evening salary equity		X	X
7. Retraining academic staff		X	X
8. Staff borrowing and exchange		X	
9. Staff agreement for transfer credits lacking		X	X
10. Theory vs. practical instructor discrepancy		X	X
11. Teaching skills for Vocational Educational Instructors	x		
E. Facilities			
1. Transportation difficulties (joint use)		X	X
2. New methods developed for expensive training needs		X	X
3. Duplication of facilities		X	
4. Facility mobility		X	X
5. Outdated		X	X
6. Not adequate for training needs		X	
7. No rewards for joint utilization	X	X	
8. Jealousy	X	X	
9. Lack of plans and procedures for sharing	X		

	Degrees of Criticalness		
	Most	Moderate	Least
F. Administrative Policy			
1. Funding formula needs revision	X		X
2. Students prefer to start at beginning		X	X
3. Uniform placement policy		X	
4. State guidelines		X	
5. Cooperation between agencies	X	X	X
6. Program identity sponsor problems		X	X
7. Released teacher time needed	X	X	
8. Lack of articulation committment (administration and faculty)	X		
9. Credit differences		X	X
G. Scheduling			
1. Lack of flexibility	X		
2. Opening and closing dates differ		X	X
3. Time lag for class offerings		X	X
4. Sequences at different levels	X	X	
H. Location			
1. Travel distances		X	X
2. Community college not always accessible		X	X
3. Service areas defined		X	
4. Transportation Costs		X	X
I. Other			
1. Vocational counseling	X		
2. Follow-up studies needed	X	X	
3. Communication to public	X		X
4. Recruitment emphasis on advanced placement		X	
5. Mutual resentment - faculties		X	X
6. Occupational job market saturation		X	X
7. Youth Organizations		X	X
8. High school drop-out enrollment-CC			X

Strategy Identification

Small Group Activity #2

The purpose of this session is to identify articulation strategies that work best for the problems that were identified during the first small group activity.

Since time will not permit the development of strategies for all problems identified, it is crucial that the most critical problems be first addressed. Therefore it is desirable that the problems be identified as to their criticalness before strategies can be developed.

Objectives:

1. To determine criticalness of identified articulation problems.
2. To identify articulation strategies appropriate for the most critical problems.

Instructions

1. Rate the problems that were identified in activity #1 as to their criticalness. All problems are to be rated.
2. Discuss and develop strategies for the problems identified as most critical.
3. The recorder will record the identified critical problems and the potential strategies generated during the discussion.

APPENDIX F

Articulation Strategies

Identified in the Small Group Activity #2

Instructions:

Identify the setting for which each strategy is most appropriate.

Problem	Strategy	Rural	Urban	Suburban
A. Curriculum				
1. Coordination between secondary and post-secondary institutions.	a. Establish joint advisory committee for service areas.	_	_	_
	b. Develop CBE at both levels.	_	_	_
2. Coordination of curriculum development and update.	a. Joint staff development.	_	_	_
	b. Joint curriculum development.	_	_	_
	c. Establish minimum competencies.	_	_	_
	d. State suggested curriculum guidelines at both levels.	_	_	_
	e. Define competency levels for certificate diploma and associate degree.	_	_	_
	f. Identify desired duplication.	_	_	_
	g. Identify advantages of articulation.	_	_	_
3. Repetition	a. Form joint articulation committee.	_	_	_
	b. Committee must be representative of community college and high schools within the area.	_	_	_
	c. Develop uniform competency based curriculum guidelines.	_	_	_
	d. Mutual exchange of curriculum materials and ideas.	_	_	_
	e. Curriculum guidelines formulated.	_	_	_
	f. Competency levels identified for certificate, diploma and associate degrees.	_	_	_
	g. Advanced placement agreements.	_	_	_
4. Joint articulation committee needed.	a. Committment of top level-secondary and community college staff.	_	_	_
	b. Mandate guidelines.	_	_	_
	c. Establish state committee.	_	_	_

Problem	Strategy	Rural	Urban	Suburb
5. Coordination of curriculum.	a. Examination of V-TECS by committees.	_	_	_
	b. Involve craft/advisory committees.	_	_	_
	c. Provide for advanced placement.	_	_	_
B. Instruction				
1. Joint teacher development. (Improvement of instruction)	a. Joint inservice.	_	_	_
	b. Joint staff development plans.	_	_	_
	c. Provide release time for articulation.	_	_	_
2. Lack of communication between teachers at both levels.	a. Channels of communication developed.	_	_	_
	b. Time for teacher development set aside.	_	_	_
3. Lack of communication.	a. Develop system for on-going communication.	_	_	_
	b. Provide time for communication sessions.	_	_	_
	c. Establish committees at division level and discipline level.	_	_	_
	d. Encourage professional organizations at both levels.	_	_	_
4. Lack of specific course objectives.	a. Follow up on what teachers in classrooms are doing - objectives, planbooks, observations.	_	_	_
C. Evaluation				
1. Credibility between instructors in evaluating students.	a. Agree on objectives (minimum competencies)	_	_	_
	b. Agree on achievement level for courses needed for transfer and advanced standing.	_	_	_
2. State and federal requirements	a. Use advisory committee to aid in evaluation.	_	_	_
	b. Secure needed data (better follow-up on secondary students)	_	_	_

	Problem	Strategy	Rural	Urban	Suburban
	3. Evaluation standards mutually agreed upon.	a. Joint service area curriculum development.	_	_	_
	4. Mutually agreed upon follow-up studies.	a. Joint development of follow-up instruments.	_	_	_
D.	Staffing				
	1. Lack of mutual trust.	a. Provide numerous opportunities to meet and work jointly.	_	_	_
		b. Develop a program to exchange staff between secondary and post-secondary.	_	_	_
		c. Mutually acceptable goals set through joint meetings.	_	_	_
E.	Facilities				
	1. Lack of plans and procedures for sharing.	a. Study the needs for new facilities.	_	_	_
		b. Joint administrative workshop for sharing.	_	_	_
	2. Jealousy	a. Plans and procedures for sharing developed.	_	_	_
F.	Administrative Policy				
	1. Lack of articulation committment.	a. Superintendents and presidents meet with state staff to develop committments.	_	_	_
		b. Hold joint inservice meetings for faculty and administrators.	_	_	_
		c. Hold meetings for subject area faculty.	_	_	_
		d. Provide incentive for in-service-credit released time, etc.	_	_	_
		e. Structured workshop to promote communication and attitude development.	_	_	_
		f. Presentation of models and successes.	_	_	_
	2. Cooperation between agencies.	a. Sub committee of advisory committee to design policies.	_	_	_
		b. Allow for various agencies to get involved.	_	_	_

Problem	Strategy	Rural	Urban	Suburban
	c. Identify critical issues.	_	_	_
	d. Develop administrative policy agreements between school districts, colleges and other agencies.	_	_	_
3. Funding formula needs revision.	a. Develop funding formula to encourage articulation of off-campus courses.	_	_	_
	b. Formula should encourage inter-facility usage.	_	_	_
G. Other				
1. Vocational Counseling	a. Vocational counselor should be required to have occupational experience for certification outside education.	_	_	_
	b. Publicize vocational success stories.	_	_	_
	c. Develop slide presentations for vocational areas.	_	_	_
	d. Develop disseminate accurate vocational information. (brochures, etc.)	_	_	_
	e. Instruct all faculty (academic) to be aware of vocational education offerings.	_	_	_
	f. In-service with industry--spend one week in each technology.	_	_	_
	g. Decentralize approach to counseling.	_	_	_
	h. Assist vocational teachers to provide vocational guidance.	_	_	_
	i. Community college and secondary counselors should work together.	_	_	_
	j. Community college should hire vocational counselors.	_	_	_
	k. Include more occupational/technical education in counselor training.	_	_	_
2. Communication to public.	a. Coop programs, youth organizations, press releases, and advisory committee should take active role in public relations.	_	_	_

Problem	Strategy	Rural	Urban	Suburban
	b. Include parents on advisory councils.	_	_	_
	c. Develop brochures with secondary and community college programs outlined.	_	_	_
	d. Open house	_	_	_
	e. Tell success stories.	_	_	_
	f. Joint newsletters.			
3. Follow-up studies needed.	a. Gather data to assist with advanced placement.	_	_	_
	b. Students should be tracked when going to advanced studies.	_	_	_
4. Attitudes	a. A desire must be developed to serve people and the community rather than to perpetuate some particular program.	_	_	_
	b. Develop better communication to improve effectiveness and reduce jealousy or mistrust and dispell myths. In order to accomplish this goal meetings must be held so that administrators and instructors can freely discuss the issues.	_	_	_
5. Rewards	a. Rewards should be made available to systems and individuals.	_	_	_
	b. Business agreements should be initiated for facility usage, etc.	_	_	_

Identification of Workable Articulation Strategies

Small Group Activity #3

The purpose of this activity is to identify the strategies that have been developed during activity #2 as to the ones most workable for your individual setting and location. Since you are grouped with somewhat similar settings, much discussion should result as to what will work or not work.

Objectives:

1. To identify additional strategies not on the list generated by all the groups.

2. To identify the appropriateness of each strategy for your setting.

Instructions

1. First, assess the new list of strategies and identify additional ones not listed.

2. Then, discuss the list of strategies as to their appropriateness for your setting and rate each one accordingly.

3. The recorder will record the ratings discussed in your meeting.

ARTICULATION WORKSHOP

FOR

KEY SECONDARY AND COMMUNITY COLLEGE

VOCATIONAL EDUCATION PERSONNEL

OCTOBER 23, 24, 25, 1978

PROGRAM

Monday, October 23, 1978

11:00-12:00 Registration

12:00- 1:30 First Session--Luncheon
Presiding
Dr. Daniel E. Vogler, Director
Division of Vocational and Technical Education

Welcome
Dr. Robert M. Smith, Dean
College of Education

Dr. John D. Wilson, Provost
Virginia Polytechnic Institute and State University

Workshop Overview
Dr. James L. Hoerner, Associate Professor and Project Director

1:45- 3:15 Second Session - Auditorium
Introduction of Speaker
Dr. James L. Hoerner

Keynote Address
"Making a Mesh of Vocational Education"
Mr. David S. Bushnell, Director AACJC/AVA
Joint Articulation Study

3:15- 3:30 Coffee Break

3:30- 5:00 Small Group Activity - Problem Identification

6:30- 8:30 Third Session - Dinner
Presiding
Dr. Rufus Beamer, Executive Director
State Advisory Council on Vocational Education

Presentation
"Articulation, Road Map to Employability"
Dr. Richard Carlson, Director of Vocational Technical Education
U. S. Office of Education

Tuesday, October 24, 1978

7:00- 9:00	Breakfast - Buffet at Your Convenience
9:00-10:30	First Session - Out-of-State Models Presiding Dr. James L. Hoerner Urban Model Milwaukee Area Technical College-Wisconsin Dr. William A. Ramsey, President Suburban Model Williamsport Area Community College-Pennsylvania Dr. William H. Fedderson, President Rural Model Coosa Valley Vocational Technical School-Georgia Mr. J. Deward Powell, Director
10:30-10:45	Coffee Break
10:45-11:30	Continuation of Out-of-State Models
11:30-12:00	Question and Answer
12:00- 1:30	Third Session--Luncheon Presiding Dr. James P. Clouse, Professor VPI & SU
1:30- 3:15	Small Group Activity - Strategy Identification
3:15- 3:30	Coffee Break
3:30- 5:00	Continuation of Small Group Activities
6:30- 8:30	Fourth Session - Dinner Presiding George S. Orr, Research and Evaluation Consultant State Advisory Council on Vocational Education Presentation *"2 + 2 = 4 or More?"* Dr. W. Robert Sullins Community College Program Area Leader VPI & SU

Wednesday, October 25, 1978

7:00- 8:30	Breakfast - Buffet at Your Convenience
8:30-10:30	Small Group Activity - Identification of Workable Articulation Strategies
10:30-10:45	Coffee Break
10:45-11:45	Workshop Summary + Evaluation Presiding Dr. James L. Hoerner
11:45	Adjournment

APPENDIX I

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APPENDIX J

ARTICULATION WORKSHOP AD HOC PLANNING COMMITTEE

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APPENDIX K

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